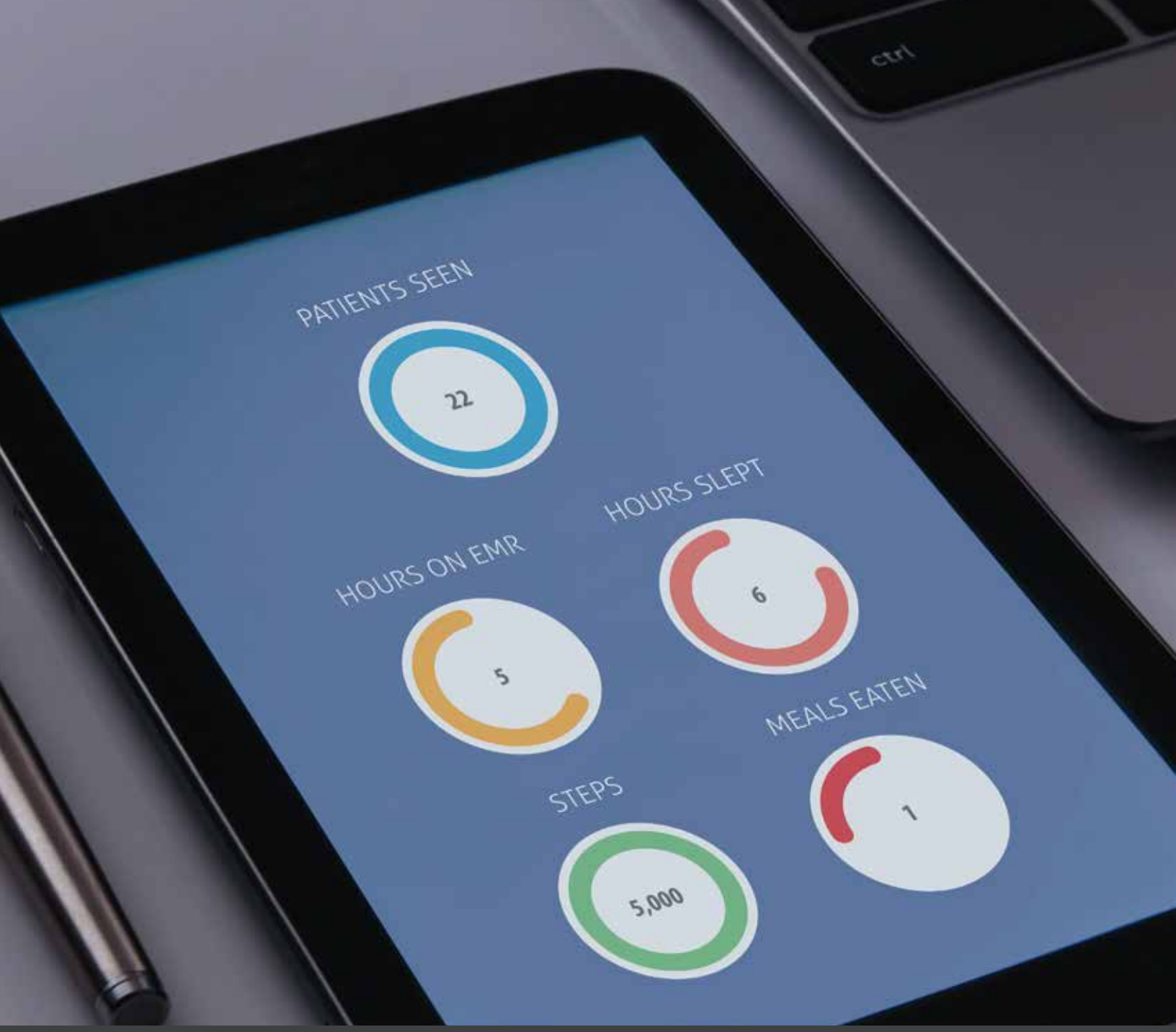
PANHANDLE HEALTH

A QUARTERLY PUBLICATION OF THE POTTER-RANDALL COUNTY MEDICAL SOCIETY

Summer 2018 | VOL 28 | NO. 3

Special Populations



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BSA Harrington Cancer Center is pleased to welcome **Dr. Javed Shinwari** to the comprehensive team of specialists. Dr. Shinwari is committed to providing patients with expert care in the diagnosis and treatment of cancer and blood disorders.

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On The Cover: "Sunflowers and Watermelon", by Marsha Clements.

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President's Message:
No Such Thing as a Free Lunch

by Ryan Rush, M.D.

The USA is the world's undisputed heavy-weight giant in the healthcare arena. It absorbs extraordinary costs while providing countless benefits to its and the world's citizens and economies, and is at the forefront of technologic innovation and production. Nevertheless, American healthcare is often berated for its inadequacy of preventive care, lack of patient access, and its high cost. Attempts at "improvement" in these perceived deficiencies always produce a rebalancing or redistribution of cost versus equity to the overall system.

Here are some of the basic questions that we as a nation must ask and come to grips with before "improvement" can be truly addressed. Is healthcare an inherent human right? If it is, am I willing to pay for it? If I am unwilling to pay for it, then who will? What freedoms am I willing to give up in order to have "free" healthcare? How long am I willing to wait for a physician appointment or surgical procedure? How many therapeutic breakthroughs am I willing to forgo in order to satisfy "fairness"? And finally and perhaps most importantly, who decides what is fair?

Government-run systems are instituted and sustained by taxation. Medicare, Medicaid, Veterans Administration, and the Indian Health Service are some prominent examples within our own system that are administered by the government and funded by the USA taxpayer. The Office of Management and Budget reported in October 2017 that our nation's top 20% income earners who file a return pay 95% of all federal taxes. However and perhaps even more alarming, about 50% of our nation's population pay no federal income taxes at all! If you make $100,000 per year, you are in the top 20%. Invariably increasing healthcare equity means squeezing the 20% for even greater taxes. Is it "fair" that 20% of the population pays virtually all federal expenses including healthcare and that half of the population pays nothing? Well, I suppose that will depend on who you ask…..

Looking around at healthcare systems from the rest of the world, no system is above reproach. Population size, geography, demography, culture, income disparity and economics are some of the important factors that guide nations to adopt certain systems. The current darling touted by healthcare economists on the political left is Singapore, a city-state of approximately 5.6 million people. It is funded mostly by health savings accounts and spends just about 5% of its GDP on its universal healthcare system; America spends 17.2% of its GDP on healthcare. However, it is compulsory that Singapore workers set aside 37% of their wages to go toward government-administered benefits including healthcare. Singapore's government determines which medical technologies are to be adopted, which medications are to be made available, and how doctors are to be compensated, just to name a few of its problems.

Taking an entirely different approach, the United Kingdom's National Health Service adopted a socialistic system; the government owns the means of production that renders care to its citizenry. Its future is quite precarious as it confronts many urgent realities: an aging population, cuts to safety nets supporting medicine, population growth outstripping the supply of healthcare providers, top-down bureaucracies and "lifestyle" diseases commanding more and more healthcare resources. Rationing of care has been institutionalized, and as of the end of 2017, about 4 million patients were awaiting treatment. The National Health Service recently proposed prohibiting patients from "elective" surgery indefinitely until they lose weight or quit smoking.

Finally, our discussion reaches Canada's healthcare system. On the positive side, primary care physicians earn about 10% more than their American neighbors. Office overhead averages an appealing 15–30% of revenues. Insurance forms are minimal; preauthorization requirements and obstacles to specialty referrals do not occur. MIPS, PQRS, documented quality improvements or mandated web portals are nonexistent. Many medical practices enforce a one complaint per visit policy. Patients in Canada "tolerate" deferral of elective services. After all, it's not the physician's fault that they must wait for a knee replacement, cataract surgery, or an MRI. Everyone in Canada does. Everyone, that is, who doesn't cross the 49th parallel to Cleveland, Rochester, Seattle, or is affluent enough to winter in south Florida. In closing, I submit to you that a robust healthcare system offering new and innovative technologies to its citizenry carries a tremendous price tag, and one thing is quite certain -- there is no such thing as a free lunch.

Our Next Issue Of

Panhandle Health

Features:

Case Studies

Alliance News

by Kristen Atkins, President

The Alliance has had a fun spring celebrating others and all that they do for our community. We honored local physicians for Doctors Day on March 29. A social was held in the evening at Taste Dessert Bar. Alliance and Society members enjoyed savory and sweet bites to eat. During the evening, two local non profit organizations were presented with checks given by the Alliance from the proceeds of our New Years' Eve Gala.

The first check for $5,000 was given to Heal the City. Heal the City provides free, quality medical care and referrals to the uninsured in our community.

The second check, for $8570, was given to Our Children's Blessing. This organization provides funds needed to pay medical bills, funeral costs, and any other expenses for a family who is trying to recover from the loss of a child. We were honored and proud to be able to share the proceeds from our event and to support other local non profits that provide wonderful services to our community.

The Alliance also had our second quarterly meeting. The meeting was held in the facilities of Two Knives Catering with Kristi Aragon. She demonstrated how to cook puff pastry flat breads, arugula salad in parmesan bowls, and shrimp. We sipped on refreshing rosemary and cucumber cocktails. We had a great turnout and everyone enjoyed the delicious food and drinks.

We also celebrated our families at our family social. It was held on May 12 at Air U. The kids ran and jumped while the adults visited (and some jumped too). After finishing jumping, everyone enjoyed pizza and cookies.

Looking ahead, we have several fun events planned. Our third quarterly meeting will include stuffing backpacks for kids going back to school. They will be given out at the Heal the City Back to School event. We will also be hosting a fall couples social in September. Please visit our website at potterrandallalliance.com for more information on upcoming events.

Save the Date:

- August 9th – 6pm Third Quarterly Meeting
- August 11th – Heal the City back to School Event

A big thank you to…

- Anna Holland for planning the quarterly meeting
- Kristi Aragon for hosting the quarterly meeting
- Kristen Atkins for planning the Doctor's Day event
- Jamie Williams for planning the family social
- Kristen Atkins, Connie Taylor, and Kristin Strefling for bringing a meal to the Ronald McDonald House
- Judy Periman, Kristin Framer, and Lisa Veggeberg for stocking the ACTS community closet

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Executive Director's Message

by Cindy Barnard, Executive Director

This issue of *Panhandle Health* deals with Health Issues in Special Populations. In a country as diverse as the United States, there are almost countless "special populations". Special needs populations, by definition, require more health care services and/or specialized health care services than other people.

Over the past years, a number of subgroups have been identified as special populations for the purposes of planning and treatment; thus, there is no single assessment of special health care needs that fits all situations. The articles in this issue illustrate that special needs populations present unique challenges in assessing and providing health care.

More Alliance News Family Social Celebration Photos

PANHANDLE HEALTH

A Publication of the Potter-Randall County Medical Society

Editorial Policy and Information for Authors

Purpose *Panhandle Health* strives to promote the health and welfare of the residents of Amarillo and the Texas Panhandle through the publication of practical informative papers on topics of general interest to most physicians while maintaining editorial integrity and newsworthiness.

Spectrum *The Journal* seeks a wide range of review articles and original observations addressing clinical and non-clinical, social and public health, aspects as they relate to the advancement of the state of health in the Texas Panhandle. Pertinent letters to the editor, news submissions, and obituaries listings are accepted pending editorial review. The Editorial Board accepts or rejects submissions based on merit, appropriateness, and space availability.

Submission process Material should be e-mailed to the editor at prcms@suddenlinkmail.com or mail a hard copy to Cindy Barnard, PRCMS, 1721 Hagy, Amarillo, TX 79106. A recent photograph of the author (optional) and a curriculum vitae or a biographical summary are also to be submitted.

Conflict of Interest Authors must disclose any conflict of interest that may exist in relation to their submissions.

Journal Articles Manuscripts should be double-spaced with ample margins. Text should be narrative with complete sentences and logical subheadings. The word count accepted is generally 1200 to 1500 words. Review articles and original contributions should be accompanied by an abstract of no more than 150 words.

References References to scientific publications should be listed in numerical order at the end of the article with reference numbers placed in parentheses at appropriate points in text. The minimum acceptable data include:

Journals: Authors, article title, journal, year volume, issue number, inclusive pages.

Books: Author, title, place of publication, publisher, year.

Web sites: URL of the site and the date the information was accessed.

Other sources: Enough information must be included so that the source can be identified and retrieved. If not possible, the information for source should be included parenthetically in the text.

Illustrations Illustrations should be black and white only with complete-sentence legend.

Previously Published Material Short verbatim quotations in the text may be used without permission but should be quoted exactly with source credited. Otherwise, permission should be obtained in writing from the publishers and authors for publishing extensive textual material that was previously published.

Editing Accepted manuscripts are edited in accordance with the *American Medical Association Manual of Style*.

Letters Letters will be published at the discretion of the editor and editorial board. The length should be within 400 words. References should not exceed five. All letters are subject to editing and abridgment.

News News should be e-mailed prcms@suddenlinkmail.com or mailed to Cindy Barnard, PRCMS, 1721 Hagy, Amarillo, TX 79106.

Obituaries Listings of deceased members of PRCMS with highlights of their contributions are published when adequate information is available.

Point of View Opinions published in any article, statement, or advertisement are the responsibility of the author and shall not be construed by any means to represent those of the editors or the medical society.

City of Amarillo Department of Public Health

by Carol Hill, Assistant Director

The City of Amarillo's Public Health department is responsible for promoting health and preventing disease in the citizens of Potter and Randall counties. Public Health serves as a safety net for many of the most vulnerable in our community and provides services and expertise in a wide range of specific areas from tuberculosis and immunizations to STDs and public health emergency preparedness. While public health by nature serves people from all walks of life, there are some special populations that are specifically impacted by the work done by these public servants. The following is a description of each of the programs Public Health offers for these individuals.

The **Communicable Disease** program conducts disease surveillance and epidemiology, interfaces with providers and hospitals, and provides community education to help reduce the impact of communicable disease on the community. This team receives reports of Texas notifiable conditions and follows up with each report to ensure the safety of both individual patients and the public, to ensure appropriate treatment of patients and contacts, and to identify and respond to outbreaks. Staff members respond to an array of disease-related questions and provide presentations and hand washing demonstrations to local schools, long-term care facilities and other populations upon request. This team also collaborates with the Department of Animal Management and Welfare to assess the need for rabies post-exposure prophylaxis for animal bite victims and provides pre-exposure vaccine as needed to members of the community. Another component of this program is the Perinatal Hepatitis B Prevention Program (PHBPP) with the goal of reducing the incidence of perinatal hepatitis B infection. It involves providing education to Hepatitis B virus (HBV) positive pregnant women, case management through the process of vaccination and HBV serology testing of the newborn infant and contacts, as well as communication with and guidance to obstetricians, pediatricians, and staff involved in both labor and delivery and the newborn nursery. While communicable diseases typically are equal opportunity and involve people from all demographic groups, the PHBPP historically has managed refugees and immigrants from Asia, the Pacific Islands and Africa more than any other demographic. These populations are affected more because of low HBV vaccinations rates in their home countries, which has lead to HBV infection becoming endemic in those regions. Many of these women were infected at birth and only learned of their infection upon the required HBV infection testing done at their first prenatal visit.

In the effort to reduce cases of vaccine preventable diseases, the **Immunization** program provides adult and childhood immunizations at low or no cost to both children and adults. This team offers immunization outreach, community education and school/daycare immunization compliance assessments. In addition to the clinic in northeast Amarillo, a mobile immunization unit is utilized to reach underserved and disadvantaged populations, reaching out to the under/uninsured at Heal the City clinic, local shelters, homeless camps, low-income housing, community centers and community events. In collaboration with local school districts, the mobile unit also offers meningitis clinics at high schools to provide seniors with this college-required vaccine. Staff also work with the STD/HIV Program to provide immunizations and education at resource and health fairs involving members of the HIV/AIDS and LGBTQ communities, the elderly and at-risk youth.

The **STD/HIV Prevention and Treatment** program provides a sexually transmitted disease (STD) clinic, disease intervention, contact investigation, HIV outreach and community education.

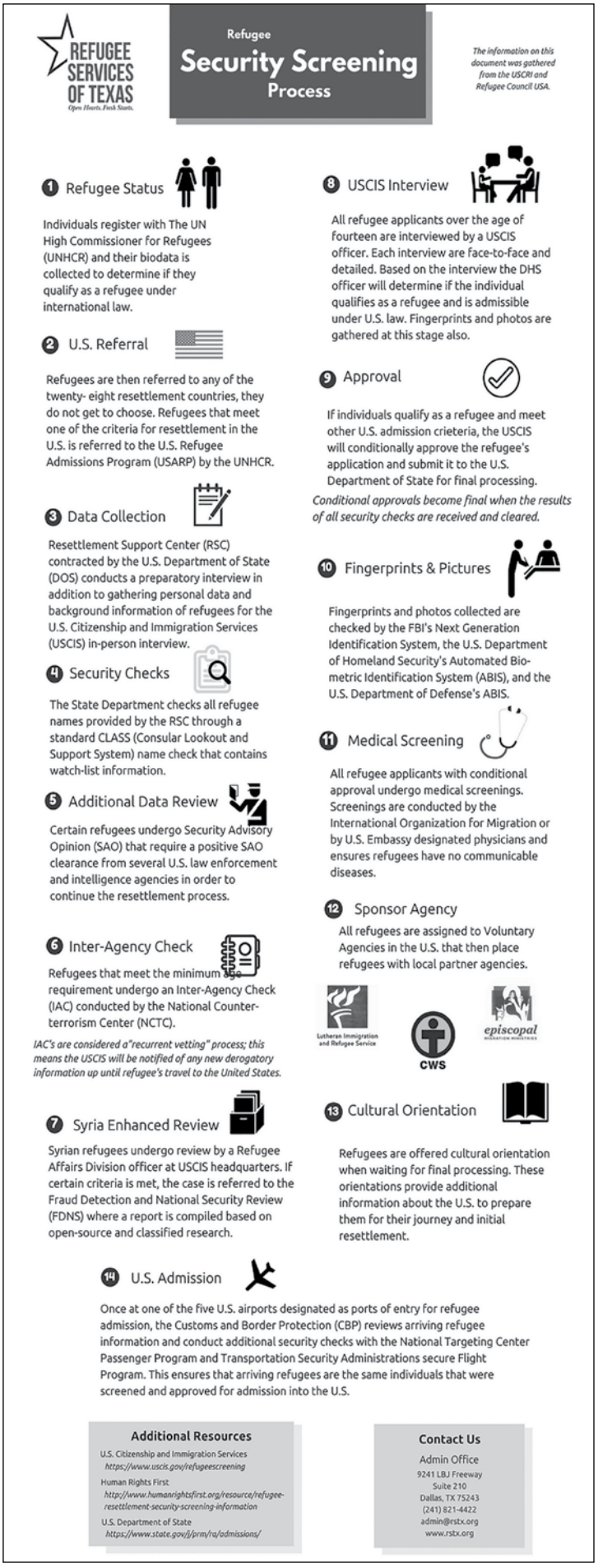
| continued on page 10

Clinic staff care for both symptomatic and non-symptomatic patients, providing identification and treatment to those who are infected with an STD. Treatment is also provided to patients testing positive from community providers as well. Disease Intervention Specialists (DIS) provide follow up to anyone testing positive for a reportable STD to ensure those individuals are appropriately treated. DIS staff also offer partner elicitation services so that partners are given the opportunity for testing and treatment. The HIV Outreach/ Prevention team offers express clinic testing services at the clinic as well as in the community. They also provide HIV/ STD risk reduction counseling and incentives as well as referrals to services and care for those testing positive. Some of the special populations targeted by this team include those incarcerated at the county jails, the homeless, the HIV/AIDS and transgender populations, and professional sex workers. Over 85,000 condoms are distributed annually by this staff to help reduce the risk of sexually transmitted diseases.

Amarillo is an international resettlement community for refugees largely due to the availability of jobs in the meat packing industry. The **Refugee Health** team provides health screenings for all refugees within 90 days of arrival. This comprehensive service includes obtaining a medical history, performing a physical assessment and administering a TB skin test. It is set up to connect patients to primary and specialty care, as well as to identify both acute and chronic diseases that may have gone untreated due to limited access to health care services. This program also offers immunization services for primary and secondary refugees for the first year after arrival. When a refugee becomes eligible to apply for permanent residency, refugee health staff provide assistance with the medical portion of green card paperwork. Community education is an important component of this program.

The **Tuberculosis Control** program works to reduce the incidence and disease burden of tuberculosis (TB). The program offers TB testing for the public. Active TB cases receive treatment including directly observed therapy at no cost as well as a contact investigation to determine if there are any contacts that test positive. Diligent testing and treatment of latent TB infection is done to limit the number of active cases diagnosed each year. TB staff are available to practitioners for technical assistance and guidance regarding diagnosis, treatment and contact testing.

The **Public Health Preparedness** team ensures emergency preparedness through collaboration with community partners in planning, response, and evaluation. Preparedness activities cover events that are naturally occurring (flu epidemic), man-made (terroristic attack) or unintentional (hazmat accident). Planning involves working closely with local, state and federal agencies to train, exercise and evaluate the city's level of preparedness for emergencies. This team also



provides Strategic National Stockpile coordination and is involved in planning and exercising mass vaccination/mass distribution of medications. Plans are inclusive of all populations and special emphasis is placed on planning for individuals with special needs such as those who are mentally or physically challenged, aged, homeless or speak English as a second language – any population that will require special or modified services. In the event of a need for mass prophylaxis, Point of Dispensing (POD) locations would be set up. Program staff are currently working with long term care facilities and retirement communities to establish them as POD sites for their residents and staff to address the special needs of these populations.

The **Public Health Promotions** program supports community efforts aimed at teen pregnancy as well as childhood safety. This team assists with the Community Health Assessment and Community Health Improvement Plans and ensures accreditation for the department through the Public Health Accreditation Board. Funding was recently approved for a new Texas Healthy Babies grant to improve health outcomes of newborns in order to reduce the incidence of pre-term and low birth weight deliveries. This program also focuses on individuals with drug and alcohol addictions by providing financial support for Amarillo Recovery from Alcohol and Drugs (ARAD).

In summary, the City of Amarillo Department of Public Health works to promote, protect and prevent issues related to health for all citizens of Potter and Randall county regardless of race, religion or sexual preference.

POTTER RANDALL COUNTY MEDICAL SOCIETY (PRCMS) OFFERS HELP TO ADDICTED PHYSICIANS

If you, or a physician you know, are struggling with addiction and are unsure what to do or whom to contact, the Potter-Randall County Medical Society is here to help. We offer face-to-face confidential sessions with the PRCMS Physician Health and Wellness Committee, made up of your physician peers who know and understand recovery. Please don't struggle alone when help is a phone call or an email away. Whether you are calling for yourself, your practice partner, or as a family member of a physician, contact Cindy Barnard, PRCMS Executive Director, at 806-355-6854 or prcms@suddenlinkmail.com. Membership in PRCMS is not required.

Disparities and Opportunities in the Primary Care of Transgender Patients

by Robert P. Kauffman, MD

Most primary care physicians are likely to encounter gay, lesbian, bisexual, and transgender (LGBT) patients on a daily basis, knowingly or unwittingly. Although psychological and medical needs of these different groups are often lumped into the LGBT banner (or the expanded LGBTQQIAP flag—lesbian, gay, bisexual, transgender, queer, questioning, intersex, asexual, pansexual), each population has its own unique health care requirements. With an increasingly open and accepting society, it is incumbent upon the practitioner to become aware of the evolving health care needs of these underserved populations. In 2014, the American Association of Medical Colleges (AAMC) declared that US medical and pharmacy schools were deficient in educating future physicians and pharmacists about LGBT populations. Medical schools were encouraged to incorporate 30 specific curricula addressing the needs of these patients (1). In this paper, specific primary care needs of the transgender population will be addressed. The psychological, endocrine, and surgical pathways to gender transformation will not be reviewed in this paper, as detailed treatises on these topics can be found elsewhere (2-4).

What defines transgenderism and how does this expression of personal identity differ from sexual orientation (heterosexuality, homosexuality, and bisexuality)? Table 1 summarizes the diversity found in human sexuality and expression. *Gender identity* is an inherent sense of being male or female regardless of genotype, phenotype, or biochemical sex. *Transgender* individuals are characterized by a disparity between their biological (natal or chromosomal) sex and their sense of gender identity. If the transgender person is committed to or has made changes in the body to be congruent with their gender identity, then the older term *transsexualism* may be applied. Male-to-female transgender persons usually identify themselves as *transwomen* while female-to-male prefer the term *trans-men*. In terms of sexual orientation, transgender individuals may have variable erotic interests, i.e. gynephilia, androphilia, bisexual, or analloerotic (not attracted to other people). Fluidity in sexual orientation among transgender persons is fairly common although more high quality research is needed to better understand this issue (5-6). The concept of "fluidity" (sexual orientation or identity can fluctuate and change throughout a lifetime), a phenomenon observed in both gender identify and sexual attraction, is beyond the scope of this paper (7-8). It is fair to say that our understanding of the human brain is incomplete!

Sexual orientation, in contrast, refers to how a person identifies physical or emotional attraction to others. Gay men identify themselves as male and lesbian women as female, but both are homophilic in attraction.

Approximately 700,000 Americans identify as transgender, gender-queer, or gender-questioning. In contrast, at least 9-10 million are estimated to be homosexual or bisexual (9). Transgenderism has been described in some shape or fashion in all cultures and throughout history (10). The incidence of transgenderism is debated, which should come as no surprise given societal and religious prejudices and marginalization. The American Psychiatric Association (APA) places the incidence at 1:10,000 natal males and 1:30,000 females. Perhaps because of changes in social acceptance and legal protection, other data suggests that it is far more common, perhaps occurring in 0.5-1% of the overall population (11). No matter what the incidence, competent care of the transgender person is an emerging issue for healthcare professionals (11-12).

The pathway to treatment for transgender people typically involves five steps (2):

- A qualified mental health practitioner confirms the diagnosis of transgenderism according to World Professional Association for Transgender Health (WPATH) or substantially similar standards.

- Psychotherapy addresses any existing psychiatric, psychological, or psychosocial conditions.

- The individual engages in real-life experience in the desired gender role for at least 12 months prior to hormone therapy.

- Hormonal therapy with periodic follow up is initiated by a physician with training and expertise in transgender endocrine care. Expectations and safety monitoring should be clearly outlined (At TTUHSC, we use an extensive, written informed consent process). Untoward side-effects and complications (which are uncommon) should be addressed at subsequent clinic encounters.

- After at least one year of hormone therapy, sexual reassignment surgery may be entertained after shared decision making between patient, treating physician, mental health professional, and surgeon. Not all transgender persons seek sexual reassignment surgery due to costs, morbidity, access to care, or personal preference.

Once the diagnosis of transgenderism is codified and the patient embarks upon the journey to gender congruity, a host of primary care issues (in addition to hormone therapy) remain. These will be addressed as a whole and then individually for trans-men and trans-women.

All Transgender Patients

Many transgender people are uncomfortable with their current primary care physicians, and undoubtedly many physicians may feel somewhat ill at ease with transgender persons and their unique

needs (hence, the need for comprehensive education in medical schools and in the continuing medical education process) (9,12). Similar to other patient populations, pediatric and adolescent patients will have their own set of concerns compared to reproductive age and older individuals. Although a pediatric or reproductive endocrinologist most likely will address inhibition of secondary isosexual development and gender dysphoria (4), the primary care physician and psychologist should be acutely aware of psychosocial issues (i.e. bullying, bathrooms, depression, etc.) with an eye to intervention. Among reproductive age groups, access and referral to infertility care may be an important issue. Physicians treating the geriatric population will experience the interface of chronic disease management and continued sex hormone treatment. Health care providers and the office staff often need specific education on topics as simple as how to address transgender patients, how to approach unique or embarrassing concerns, and billing/coding (12).

• Electronic medical records (EMR). Many EMR systems have adopted a 2-step gender identity intake. An example is illustrated in Table 2 (13-14).

• Names and pronouns. Although the current legal name (and name on the insurance card) should be entered into the medical record, the preferred name or nickname should always be used in addressing the patient and should be listed prominently on the chart or EMR. Trans-men should be addressed using masculine pronouns and trans-women with the feminine.

• Body parts. Pre-surgical transgender individuals, in general, may find discussing native portion of their bodies uncomfortable if not embarrassing. Hence, among trans-men, the breasts may be referred to as "top" (and mastectomies as "top surgery") and the vagina as "bottom" or "front hole". The anus, parenthetically, is the "rear hole" or something similar. Among trans-women, the male external genitalia should be called "genitals" and testes "gonads" or something seemingly more gender-neutral (2,15).

• Mental health. Although exploration of gender identity and dysphoria should be addressed prior to formal transition by a mental health professional trained in gender issues, a number of ongoing issues should be addressed by both medical and mental health providers. The "coming out" and social transition may be more challenging and complex than that facing gay, lesbian, and bisexual persons (12,16). After all, it is essentially impossible to "stay in the closet" when one transitions to the desired gender identity in name, dress, and behavior. Fortunately, there are peer groups throughout the country (including one at PASO House in Amarillo) to provides affirming support and practical guidance. A host of mental health concerns are more prevalent in transgender populations, including depression, anxiety, PTSD, substance abuse, and suicide (12). Homelessness and unemployment remain highly prevalent as well (2,12).

• Sexually transmitted infection (STI) screening. Transgender people are less likely to access preventative health services compared to cis-gender individuals (2,12,17). Trans-women, in particular, are also more likely to be victims of sexual assault (12). Interestingly, there are no specific evidence-based guidelines for STI screening in transgender persons, unlike sexually active teenagers and men who have sex with men (MSM) (17). The prevalence of HIV/AIDS is higher in the transgender population overall and particularly among trans-women of color (range 10-52%) (12). Pre- and post-exposure HIV prophylaxis (PrEP and PEP) should be offered to high risk individuals (12). Transgender persons should undergo HIV and STI screening similar to other high risk individuals on an annual basis (18). A more limited screening schedule is appropriate for those in long term monogamous relationships. Trans-men should undergo cervical/vaginal cultures for gonorrhea, chlamydia, and trichomonas if intravaginal intercourse has occurred in the recent past (12,18). Among trans-women who perform insertive intercourse, condom use can be challenging because of diminished penile tumescence which is commonplace on estrogen therapy (12). HPV vaccination should be offered to younger transgender people just as it is for the heterosexual, cis-gender majority (19). Hepatitis C is not a contraindication to hormone therapy in those with compensated disease (12).

• Smoking cessation. Despite a paucity of information on this topic, tobacco abuse among transgender individuals appears higher than the general population. Tobacco use has been reported between 20 and 83% of transgender people (12). Interventional strategies should be discussed.

• Substance use/abuse disorders. Although data is scarce, substance use disorders appear higher in the transgender community (12, 20). Interventional services should be recommended.

| continued on page 14

• Deep venous thrombosis (DVT). The incidence of DVT may be higher in transgender patients on hormone therapy. It is not appropriate to discontinue hormone therapy in transgender patients who develop DVT any more than one would recommend bilateral oophorectomy or orchiectomy in cis-gender patients with thrombosis. Anticoagulation should be initiated in addition to hormone therapy. The physician managing hormone transition should be made aware of any change in status. In trans-women, transdermal estrogen may have less thrombogenic risk compared to oral estrogens although this has not been verified in clinical practice (2, 21). Anticoagulated men must change administration of testosterone from intramuscular administration to transdermal forms to avoid hematoma formation.

• Fertility. Prior to sex hormone therapy, cryopreservation of semen or oocytes should be discussed with referral to a reproductive endocrinologist for those who wish to discuss or proceed with gamete preservation. Both the American Society of Reproductive Medicine (ASRM) and European Society of Human Reproduction and Embryology (ESHRE) have established guidelines for fertility care in transgender individuals and recommend the same access to donor semen, donor oocytes, and donor embryos as afforded to cis-gender, heterosexual couples (22).

• Legal documents. Most countries, including the USA, allow health professionals to write a letter of support requesting that the "sex" be changed on driver's licenses, passports, social security cards, and other legal documents. At TTUHSC, we use a standard letter guided by WPATH and the National Center for Transgender Equality (2).

• Cancer screening. Any patient with a body part that would normally meet cancer screening guidelines should be screened accordingly (2, 9). More specific recommendations are detailed below.

Trans-men (F to M)

• Breast binding. Trans-men, understandably, do not want female breasts. Tight binding is often employed to hide breast development in trans-men prior to undergoing bilateral mastectomy and nipple reconstruction. Prior to plastic surgery, breasts should be unbound periodically for physician examination. Excessively tight binding can cause skin breakdown and traumatic fat necrosis of the breasts (23).

• Cervical cancer screening. Practitioners are often reluctant to perform PAP screening in trans-men, and trans-men are similarly disinclined to request pelvic examination (12). The vaginal speculum and bimanual examinations may be psychologically traumatic and distressing. Pre-procedural education is helpful, and in many cases, cervical cancer screening can be delayed until a subsequent visit. The website, *www.checkitoutguys.ca*, offers an excellent resource on the benefits of pelvic exam and cervical cancer screening in trans-men from a trans-male point of view. A supporter in the room may be helpful. Fortunately, cultures for gonorrhea, chlamydia, human papillomavirus (HPV), and common vaginitis infections can be procured by self-swab, diminishing anxiety when PAP screening is not due. Hysterectomy (in the absence of a history cervical dysplasia or cancer) ends the need for cervical cancer screening. Almost invariably, bilateral salpingo-oophorectomy is performed with hysterectomy, essentially abolishing the risk for ovarian cancer (24).

• Breast cancer screening. Until bilateral mastectomy is performed, mammographic screening should follow one of the many published guidelines. A specific breast screening guideline does not exist for the transgender patient. Androgen therapy does not alter the initiation or timing of mammography (24).

• Vaginal bleeding. Androgen treatment usually inhibits ovulation and promotes endometrial atrophy in biological females. Nevertheless, uterine bleeding may occur in the pre-hysterectomy patient. Bleeding in the trans-male typically creates distress and embarrassment. Addition of a progestin, aromatase inhibitor, or even the levonorgestrel IUD will usually arrest bleeding (2, 24).

• Polycythemia. Periodic CBC assessment is recommended by the Endocrine Society and WPATH since intramuscular testosterone (in contrast to transdermal T) tends to stimulate erythropoiesis to a greater degree. If present (hematocrit >50%), therapeutic phlebotomy can be accomplished by a blood bank. In the absence of the usual contraindications, blood banks will process the blood for subsequent donor transfusion (2,3,25).

• Dyslipidemia. Androgen therapy may promote an atherogenic lipid profile. Treatment is similar to other populations (diet, weight loss, statins, etc) (3).

Trans-women (M to F)

• Cancer screening. Although trans-women are usually proud of estrogen-facilitated breast enlargement (or breast implants), they become candidates for mammographic screening according to

| continued on page 16

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various established guidelines. If testicular enlargement or pain is encountered, genital examination is necessary (in presurgical trans-women). Testicular cancer usually presents in young biological men, often well before gender reassignment surgery would be pursued (24).

• Tucking. Displacement of the testes into the inguinal canal and taping or positioning the penis towards the rectum is often employed by trans-women to accomplish a feminine contour (Figure 1). The process may be facilitated by a tight garment commonly called a "gaff". Pain associated with this practice may be mechanical, neuropathic, or traumatic. In such cases, the physician should recommend less frequent and looser tucking if reassignment surgery is not imminent (2).

• Cosmetic issues. Antiandrogens (spironolactone, flutamide, finasteride, etc.) can diminish the velocity and coarseness of terminal hair growth but do not arrest or reverse it. LASER hair removal is most beneficial after estrogens and antiandrogens have been prescribed for several months. Voice modulation may require referral to a speech pathologist. Laryngeal enlargement, when bothersome, can be treated by laryngeal shaving. Facial reconstruction has been successful in giving a more feminine visage. Many trans-women are dissatisfied with estrogen-stimulated breast development and opt for implants (2, 26).

Summary

This paper summarizes major issues associated with primary care of the transgender patient but certainly not all of them. Institutions providing care to the transgender community should include a physician knowledgeable in hormone therapy and transgender treatment, a mental health expert, and ultimately a trained surgeon for those who elect to undergo reassignment surgery. The primary care physician, usually tasked with acute and long term care of issues not necessarily associated with hormone treatment, is the fourth member of the treatment team. Ultimately, communication between each member of the treatment team is paramount to assure proper care of this underserved but growing population.

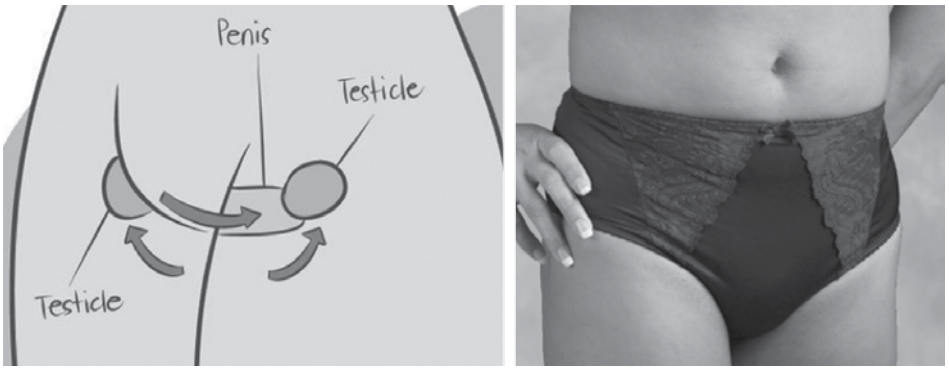

Figure 1.

Table 1. Human Sexuality and Identity: Definitions.

Term	Definition
Sex	Physical genotype and phenotype without regard to sense of self, i.e. chromosomally or genetically assigned gender at birth (natal sex).
Gender identity	Inherent sense of being male or female regardless of genotype, phenotype, or chromosomal sex.
Transgender	Gender identity differs from chromosomal or natal sex
Transsexual	Clinical term referring to those committed to making their body congruent with their gender identity (social and somatic transformation).
Cis-gender	Congruence between biologic (natal) sex and identity
Sexual orientation	Sex that one is physically attracted to without regard to gender identity (includes homosexuality, heterosexuality, and bisexuality). An enduring pattern of emotional, romantic, and/or sexual attraction to men, women, or both sexes.
Cross-dressing (transvestitism)	One who derives pleasure or sexual excitement from dressing in clothes of the opposite sex. Gender identity is congruent with biologic sex.
Gender identity disorder	Older term covering transgenderism (not included in DSM-V)
Gender dysphoria	Distress accompanying incongruence between natal sex and expressed gender (DSM-V)
Gender incongruence	WHO ICD-11 term referring to transgenderism
Gender non-conforming (gender-queer)	Gender identity varies from natal sex but more complex or fluid than transgenderism.
Questioning	Those in process of discovery and exploration about sexual orientation, gender identity, and/or expression.
Fluidity	A change in sexual orientation or identity that may fluctuate over time or by situation. Opposite of "essentialism".
Disorders of sexual differentiation (DSD)	Conditions showing disagreement between chromosomal or gonadal sex and phenotypic expression (examples: virilizing congenital adrenal hyperplasia in genotypic female, androgen insensitivity syndromes, 46,XY gonadal dysgenesis, and 46,XX male syndrome).

Table 2. EMR gender identification format. (13-14).

1. What sex were you assigned at birth?	2. What is your gender identity?
_____ Male	_____ Male
_____ Female	_____ Female
_____ Declline to answer	_____ Transgender Man
	_____ Transgender Woman
	_____ Gender non-conforming (gender queer)
	_____ Other_____
	_____ Declline to answer

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Chronic Disease in the Indigent Patient Population of Heal the City

by Gregory E. Hoy; Chelsea Stevens, RN, BSN; Alan Keister, MD, FACP

Abstract

Heal the City, founded in 2014 by Dr. Alan Keister, serves the uninsured population in Amarillo, the Panhandle, and surrounding states. Though our patients are typically high-school educated and employed, they do not make enough to purchase insurance or out-of-pocket healthcare. HTC began as a facility to serve the urgent-care needs of this population, but we have realized the need for a model that also helps patients manage their chronic conditions. To address this, HTC launched the Shalom Chronic Care Clinic, a program of HTC that connects these chronically ill patients to a provider who can monitor their disease(s), both acute and chronic, and can ensure that patients are on track with medication compliance and wellness goals.

Article

In 2016, the state of Texas topped the nation with an uninsured rate of 16.6% (1). In Potter County, one out of every three individuals is uninsured (2). So how do the uninsured in Amarillo get health care? These patients have few healthcare options. Some can qualify for financial assistance through the NWTH J. O. Wyatt Assistance Program where they receive comprehensive healthcare. Others may be able to afford Regence Health Network, a Federally Qualified Health Center where patients pay according to a sliding scale based on income for primary care services. For the rest, health care is often restricted to the occasional emergency room visit or over-the-counter medications. Heal the City seeks to be a solution by providing free, quality care with compassion and dignity to uninsured patients who do not meet the criteria for other resources. This article explores the demographics of

Table 1. Demographics of HTC Population

	Mean	Sd. Dev.	95% CI
Age (n = 128)	44.39	14.11	[42.20 - 46.58]
Monthly income (n = 122)	$1055.00	1130.00	[$852.81 – $1258.00]
Federal Poverty Level % (n = 108)	71.52%	70.50	[58.07% - 84.96%]
	Frequency	**Percent**	
Sex (n = 128)			
Female	80	62.50%	[53.51% - 70.90%]
Male	48	37.50%	[29.10% - 46.49%]
Ethnicity (n = 120)			
Not Hispanic or Latino	57	47.50%	[38.31 – 56.82%]
Hispanic or Latino	63	52.50%	[43.18% - 61.69%]
Preferred language (n = 126)			
English	74	58.73%	[49.62% - 67.42%]
Spanish	51	40.48%	[31.83% - 49.58%]
Burmese	1	0.79%	[0.02% - 4.34%]
Education (n = 118)			
No HS diploma/GED	40	33.90%	[25.44% - 43.19%]
HS diploma	57	48.31%	[39.01% - 57.69%]
GED	20	16.95%	[10.67% - 24.96%]
Current student	1	0.85%	[0.02% - 4.63%]
Employment (n = 101)			
Unemployed	42	41.58%	[31.86% - 51.82%]
Employed full-time	34	33.66%	[24.56% - 43.75%]
Employed part-time	17	16.83%	[10.12% - 25.58%]
Retired	4	3.96%	[1.09% - 9.83%]
Disabled	2	1.98%	[0.24% - 6.97%]
Student	2	1.98%	[0.24% - 6.97%]
Care without HTC (n = 100)			
No care/ER	81	81.00%	[74.17% - 87.99]
JO Wyatt, Regence, Texas Tech etc.	7	7.00%	[2.86% - 13.89%]
Urgent care	10	10.00%	[4.90% - 17.62%]
Other	2	2.00%	[0.24% - 7.04%]

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the indigent patient population of Heal the City, the chronic healthcare needs of our patients, and ways in which Heal the City is attempting to meet these needs.

In 2017, Heal the City saw 2,329 unique patients and provided over 7,053 individual patient visits for medical and dental care, immunizations, and medication refills. Table 1 highlights the demographic data and the unique characteristics of the HTC patient population. Our patients are, on average, living below the federal poverty line with an average income of approximately $1,000 a month. The financial situation for most of our patients makes the purchase of insurance or out-of-pocket medical care impractical or impossible. Over half of our patients have received a high school diploma or the equivalent, and the majority of our patients are either working or are medically disabled. Over 80% of our patients indicated that, if HTC were not available as a resource, they would seek primary care from the emergency room or would seek no care at all. The average Heal the City patient is someone who has at least a high-school education and is working at least part-time while trying to raise children, but who cannot afford to see a primary care provider or to purchase medications.

Heal the City set out to provide quality urgent care, but we found that many of our patient desperately needed primary care. Though infrequent access to medical care is not ideal under any circumstance, it is especially devastating for patients with chronic diseases that require regular follow-ups with a provider and consistent medication usage. Table 2 indicates the prevalence of various chronic conditions in the HTC patient population for 2017. The first column represents the frequency of each chronic condition in the HTC population. The second column represents the prevalence of each disease among the total number of patients seen for medical office visits. Finally, the third column represents the prevalence of each chronic condition among patients who regularly came to HTC for medication refills. Though these data were not collected directly and may underestimate the true burden of chronic disease in this population, chronic diseases such as diabetes and hypertension were found to encompass a large portion of patient encounters at HTC. This came as no surprise; HTC sees patients for what is often their first primary care encounter in years, and many patients present with undiagnosed chronic conditions or previously diagnosed chronic conditions that have been left unmanaged for months or years.

Though Heal the City was founded with the mission of being primarily an acute care facility, these data on our patients and their chronic diseases demanded action. On October 10, 2017, Heal the City launched the Shalom Chronic Care Clinic with the goal of serving as a medical home for uninsured patients with one or more chronic illnesses. Shalom is a Hebrew word that means peace, but it incorporates the ideas of health, wellness and human flourishing. Our dream is to see that kind of holistic care for our patients. All services provided through the Shalom clinic are free for patients, but these services are provided with the expectation of reciprocation. First, patients must go through an intensive screening to make sure they do not fit in one of the other existing resources. Patients then go through orientation and receive access to medical follow-up appointments, medications, labs, and referrals. In exchange, patients make a commitment to log hours in the wellness center, engage in health and nutritional education classes, and demonstrate accountability and compliance with medication regimens. In this model, Heal the City is teaming up with patients in order to help them reach their health goals, rather than just handing out medications. Such a model has helped us provide better care and achieve better outcomes for our patients while helping them manage the constraints of their socioeconomic situations. As of March 2018, over 120 patients have been enrolled in Shalom, and a preliminary analysis has indicated that a majority of our first subset of patients have been successful at losing weight and better managing their chronic condition(s) as measured through improvements in outcomes such as HgA1C, blood pressure, and lab values. By utilizing our unique patient data, we have adapted the comprehensive care model of the Shalom program to better serve the indigent population of the Panhandle. We believe we can enable our patients to successfully navigate the road towards better health.

Table 2. Chronic disease in the 2017 HTC Population

	Frequency	% of HTC patients	% of HTC refill
Type 2 diabetes	198	14.5%	40.5%
Hypertension	276	20.3%	56.4%
Asthma/COPD	57	4.2%	11.7%
Depression/Anxiety	69	5.1%	14.1%
Hyperthyroidism	60	4.4%	12.3%
Comorbid (2+ conditions)	290	21.3%	59.4%

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We are grateful for the support of these organizations and anticipate another great year of serving the needs of our members. The purpose for Circle of Friends is to provide a valuable base of resources to assist the physician in the business of medicine so their practice of medicine can improve.

This program has proven to be a valuable resource of services such as liability insurance, accounting, banking and much more. This year, we hope to expand the Circle to include services the physician may use in his or her personal life. Through this program, we can invite businesses serving physicians to support the Society and increase their visibility among its members. Corporate support contributes to the Society's ability to advocate and care for physicians and patients in Potter and Randall Counties.

The Medical Society thanks all of its supporters as it offers new opportunities to its membership.If your business is interested in being a part of our Circle of Friends, please contact Cindy Barnard at 355-6854 or e-mail prcms@suddenlinkmail.com.

The Burden of Stigma Regarding Substance Misuse: Barrier to Treatment, Bane of Recovery

by Martha D. Burkett, MPA, LPC, NCC, CAADC, ACS, LADS, DOT-SAP

In an effort to de-stigmatize alcohol and drug related maladies, the diagnostic and statistical manual version 5 (DSM5) changed the language that previously referred to alcohol and drug abuse and alcohol/drug dependence (addiction) to substance use disorder, mild, moderate, or severe.

In our society there is a very negative and prevalent association with the words "addict" and "alcoholic", and these derogatory terms are still widely used. This antiquated association was and continues to be born of ignorance and unhealthy shame, or *stigma*. Shame and the societal stigma that accompanies it is very detrimental to understanding substance misuse, identifying those in need of treatment, and facilitating acceptance, treatment, and subsequent recovery among those afflicted with this debilitating condition. This position of judgment and attitude of intolerance often stems from the widespread and misinformed belief that addiction is a terrible character flaw, or moral deficiency, and that those who suffer are deserving of their 'self inflicted' pain. Modern science has provided us with ample evidence that substance use and other compulsive disorders are, in fact, physiological conditions that are rooted in brain disease.

Dr. Nora Volkow PhD. is the director of the National Institute on Drug Abuse (NIDA). Dr. Volkow's body of work has been successful in demonstrating that substance use disorders are a disease of the brain. As a research psychiatrist and scientist, Dr. Volkow pioneered the use of brain imaging to investigate the toxic effects and addictive properties of substances being misused. Her studies also documented changes in the dopamine system affecting the functions of frontal brain regions involved with pleasure in addiction. Her findings help to explain the irrational compulsion to continue using substances despite seemingly endless negative consequences throughout the progression of the disorder. This information also further supports the notion tha treatment is an appropriate intervention for people who are struggling with substance misuse.

It is true that some individuals struggling with substance misuse are indigent, unemployed, and/or engaged in criminal activity, but the reality is that the majority of individuals with substance use disorders are functional, in varying degrees. They are students, teachers, lawyers, bartenders, chefs, postal workers, housewives, architects, gas station attendants, bank tellers, wait people, veterinarians, psychologists, dentists, social workers, anesthesiologists, clergy, physicians assistants, nurses, doctors, mothers, fathers, brothers, sisters, aunts, uncles, cousins, and grandparents; and they look just like you and me. Regardless of socioeconomic status, all people deserve the hope for healing that treatment and recovery can provide.

There is not one definitive answer to the question "How do substance use disorders get started?" and it is accurate to say that scientific and social researchers sometimes have differing opinions about whether substance use disorders are inherited or learned, or both. However all do agree that it is an insidious condition, capable of causing great harm and distress to individuals and families, as well as negative impact within the work force and society at large.

In 1956 the American Medical Association defined alcoholism as a disease, and in 1987 declared drug addiction as a disease; yet in our culture persons who suffer from *this* disease are seldom afforded the same compassion and support that a person who is diagnosed with heart disease, cancer or diabetes might experience. To say that a cardiac, cancer or diabetic patient was deserving of his or her condition or to state that it was "self inflicted" would be considered contrary to scientific knowledge, thoughtless and even cruel. Yet such thinking is commonplace in regard to those who suffer from substance use disorders.

To some extent, stigma also originates from denial stemming from a resistance (shame) to identify oneself and/or others

as people with substance use disorders. If the prevailing sentiment is that individuals with substance use disorders are people who are "bad" or "flawed" in some fundamental way, it becomes very difficult to identify one's self or another as such a person, thus, impeding the possibilities for receiving needed treatment and the rebirth of hope that recovery can provide.

Denial is not really a *symptom* of substance use disorders, per se, but is most assuredly a force to be reckoned with, within the dynamics of the condition. Denial is a thought distortion – it's function is to protect the affected individual from fully experiencing the physical, psychological, social, spiritual and emotional pain of substance misuse, making it possible for the condition to continue and to progress in its insidious destruction of its host.

Denial is very frustrating for those in close contact with the person who is struggling with substance misuse. It is important to understand that a person in the throes of substance misuse, by virtue of the denial that is inherent in the disease, is *unable* to see clearly. Consequently, without the intervention of others, they may be *unaware* of the havoc wreaked on their own lives, as well as in the lives of those around them.

People who are closely involved with the affected person will sometimes develop their own protective thought distortion (denial) which manifests in behaviors and attitudes which *enable* that person to continue on their path of destruction.

Some examples of *enabling* include:

- Accepting excuses/alibis for mistakes and/or irresponsible behavior
- Taking over the responsibilities of the impaired person
- Making excuses or covering for the impaired person
- Ignoring signs of impairment, such as:
  - o excessive absenteeism/ tardiness
  - o changes in demeanor, temperament and/or mood swings
  - o irritability
  - o poor or deteriorating hygiene
  - o stressed or fractured interpersonal relationships
  - o changes in appetite
  - o changes in sleep patterns
  - o changes in work or school habits
  - o poor relationships

Uncomfortable and awkward as it may be, it is essential to address these symptoms and behaviors early on. It is common thinking in that a person who struggles with substance misuse must "hit bottom" before he/she experiences an epiphany and becomes willing to seek and accept help and initiate change. Allowing the impaired individual to experience natural consequences of those distorted attitudes, ideas and behaviors inherent in the disease process can *expedite epiphany*. It is always important to be well prepared when addressing the behavior of a person who is impaired, and to maintain a position that is discreet, yet direct; firm, yet compassionate, and above all, respectful. It is advisable to consult with treatment professionals who are familiar with the dynamics of substance misuse when preparing for this process.

Successful treatment and recovery from substance misuse are processes, which involve extensive renegotiation of relationships with self and others. Introspection and self- examination, as well as the exploration and identification of feelings, are part of this renegotiation. It is inevitable that in this intervention, healing and recovery process, the affected person will experience shame and they will struggle with differentiating appropriate, healthy shame about *what they did while operating while misusing substances* , as opposed to unhealthy shame about *who they are, by virtue of identifying themselves as people with substance use disorders.* It is most helpful if families and significant others join in a similar, though perhaps less arduous, undertaking.

Healthy shame facilitates healing. It is an important part of the renegotiation process for the recovering individual to acknowledge shame about personal wrongdoing within the context of the disease, and to make restitution whenever possible. This is a lengthy and sometimes painful endeavor. Unhealthy shame, or stigma, not only prohibits healing, it also exacerbates psychic pain associated with substance misuse. This is why forgiveness, or letting go, is also a part of the process of recovery. This part of the renegotiation of relationships is essential to healing, and is most beneficial if it becomes a mutual process involving the recovering individual and his/her support network. It applies to the forgiveness of overt wrongdoing initiated by the recovering person while impaired (self forgiveness), as well as wrongs committed against that person (forgiveness of others). Perhaps most importantly, it applies to the *letting go of attitudes, ideas, and behaviors which do not facilitate healing.* This release of old attitudes, ideas, and behaviors allows for an atmosphere of freedom and renewal in the hearts and minds of the recovering individuals as well as the environs of society.

If you or someone you know is struggling with substance misuse and would like to learn more about treatment and recovery services available, please feel free to contact ARAD at (806) 350-2723 and one of our staff will be happy to speak with you discreetly and confidentially about assessment and person-centered, holistic, treatment options. Consultations and assessments at ARAD are free, and if our services do not meet identified needs, we will help facilitate referrals to services that will. Please visit us at ARADamarillo.com and follow our facebook page: https://www.facebook.com/AmarilloRecoveryfromAlcoholandDrugs

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Behind the Term: Substance Use Disorder Prepared in 2016 by Development Services Group, Inc., under contract no. HHSS 2832 0120 00 37i/HHSS 2834 2002T, ref. no. 283– 12–3702.

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Botulinum Toxin Injections for Management of Spasticity in Cerebral Palsy

by Todd Bell, M.D.

Botulinum toxin is a highly poisonous substance produced by *Clostridium botulinum*. "Sausage poisoning" was first noted in Germany in the late 1800s due to poor sanitation and poverty following the Napoleonic wars (1). The toxin produces flaccid paralysis by blocking the pre-synaptic release of acetylcholine at the neuromuscular junction. As with some other substances, though, a dangerous chemical in one setting may be a valuable therapeutic in another. Botulinum toxin (BTX) is used for treatment of spasticity due to cerebral palsy or stroke, migraines, hyperhidrosis, focal dystonia, chronic pain, and eye movement disorders.

There are seven types of BTX, of which types A (BTX-A) and B (BTX-B) are approved for therapeutic use in humans. The potency, storage, dosing and administration of the two types, though, are significantly different. As a general rule of thumb, the dose of BTX-A is approximately 1 unit of therapeutic agent for each gram of specific muscle mass to be paralyzed (2). Despite similarity in mechanism of action, the potency of BTX-B, on the other hand, has been estimated to be 50 fold lower than BTX-A (3). It has been recommended that once an effective dose of BTX has been established for a particular patient, the same formulation be used consistently. In general, the paralytic effects of BTX peak at approximately 3 weeks post-injection and are expected to wear off in 3-4 months, requiring repeat injection for continued benefit.

BTX is commonly used in the setting of cerebral palsy. The application to an individual patient is dependent on a thorough evaluation with an understanding of underlying biomechanics and a clear picture of the therapeutic goals desired. For an ambulatory patient with lower extremity spasticity, the goal may be to decrease gastrocnemius spasticity and thereby improve ankle plantarflexion to decrease mid-foot stress from weight-bearing and optimize the plantar surface area for balance. On the other hand, a non-ambulatory patient with lower extremity spasticity may still benefit from BTX therapy of the hip adductors for the purpose of decreasing hip dislocation risk. In each case the injection site and dosage should be determined by the biomechanics of the affected joint that will achieve the desired outcome for that joint. Rarely is only a single joint or plane affected by a BTX injection. Some common joint/muscle specific indications for BTX injection in cerebral palsy include excessive shoulder adduction and internal rotation, elbow flexion, forearm pronation, thumb adduction, hip adduction, and knee flexion. It is important to differentiate between spasticity and contractures when selecting patients for BTX therapy. BTX is, obviously, of no benefit on muscle contractures.

Spasticity in cerebral palsy can be painful and result in long term functional limitations. In one of the largest studies on the effects of BTX on quality of life, impact of therapy varied by disease process, but in general supported improved function and decreased pain (5). A smaller study focused on qualitative perspective of children with cerebral palsy and their families. The common themes emerging from the study were that children had improved function and activity with decreased pain after the injections. The injections themselves, however, were viewed as troublesome by both parents and patients (6). Attention must be given to mitigating the negative experiences of therapy delivery. A study compared lower extremity BTX with intensive physical therapy versus intensive physical therapy alone in relatively high functioning cerebral palsy (ability to walk independently with an assistive mobility device). In this study of 65 patients, the addition of BTX to intensive physical therapy did not improve functional outcomes at 12 weeks (7). A systematic review of 33 studies and more than 1200 subjects with cerebral palsy showed improved clinical outcomes compared to placebo in combination with physical therapy, casting or bracing (8). Additional research is necessary to determine which patients and conditions would optimally benefit from BTX therapy. There is widespread agreement, however, that BTX is not a "stand-alone" therapy, but should be used in conjunction with physical therapy, bracing, or casting for cerebral palsy management (7).

BTX is frequently administered without sedation, as the actual injection is minimally invasive (2). For select patients, however, sedation should be considered. The injection is administered along the neuromuscular junction of the target muscle. Electromyography guided, electrical stimulation guided, ultrasound guided and anatomically guided injection techniques have been employed.

Although placement technique is dependent on provider resources and expertise, a systematic review showed better outcomes in a heterogeneous selection of studies when an augmented guidance technique (for example ultrasound) was used (4).

The most common side effects of BTX are pain at the injection site and muscle soreness. BTX dissipating from the injection site into the blood stream can have life-threatening complications, however. Overdose, or misplacement of the toxin into the blood stream, can result in respiratory failure, dysphagia, muscle weakness or death. In our own practice, we typically administer an initial "test dose" of half of the anticipated therapeutic dose at the first treatment for BTX naïve patients to insure tolerance.

BTX is a useful adjunct to the management of cerebral palsy related spasticity in selected patients. When administered, care should be undertaken to understand the affected biomechanics and the therapeutic goal.

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The Role of Public Health in the Refugee Pipeline Process

by Laci Scott, MPH

Since 2010, Amarillo has been the final destination for over 4000 refugees, asylees, and parolees. These categories are special designations from the US government for persons who cannot return to their countries of origin for reasons of "race, religion, nationality, political opinion, or membership in a particular social group." Typically in a country of first asylum, these individuals register with the United Nations High Commissioner for Refugees (UNHCR), and after their status as a refugee has been certified, they begin an extensive and lengthy road to resettlement.

Once a refugee has been approved for admission to the United States – a process that can take years – they undergo an overseas health screening. This is a very comprehensive medical exam which serves to both identify previously unknown (and untreated) health conditions, and to communicate to providers in the patient's country of resettlement any issues of interest or concern. As part of these screenings, patients are given prophylactic parasite treatments and immunizations.

The US has identified a number of "communicable diseases of public health significance" that would prevent an individual from entering the country. Most notably, these are active and infectious forms of tuberculosis, Hansen's disease, syphilis and gonorrhea. Once these conditions are treated and the person is no longer considered infectious, they are cleared and are again eligible for resettlement. Of note, HIV is no longer an excludable condition and, as such, is rarely included in an overseas screening.

Prior to arrival in the United States, each person is assigned to a resettlement agency. There are two resettlement agencies in Amarillo – Refugee Services of Texas and Catholic Charities of the Texas Panhandle. The resettlement agencies refer individuals and families who are eligible for services to the City of Amarillo Department of Public Health for a health screening. The purpose of this screening is two-fold: 1) a more in-depth screening of non-communicable diseases coupled with information from the overseas health screening allows the practitioner to better put together the puzzle of a patient's health history and current conditions. From there, the patient can be properly referred to primary or specialty care. 2) Communicable diseases that do not fit within the government's designation of "public health significance" can be identified quickly and treated accordingly. Intestinal parasites, HIV, hepatitis B and C are all included in this domestic screening.

Refugees qualify for eight months of Medicaid upon arrival in the United States, so any conditions requiring follow-up are not the direct financial responsibility of the patient. Additionally, translation and interpretation services are included in grant funding provided to the City of Amarillo for health screening. The grant pays for these interpreter services for the first referral appointment as well, to facilitate the transfer of care to the receiving physician and ease the burden of that initial encounter.

This referral appointment serves as the last step in the health screening process, and from there, the patients are assimilated into the healthcare system.

Clinton Indian Health Center Services

by Sarah Hartnett, M.D., Clinical Director, Clinton IHS

The Clinton Indian Health Center (CIHC) is a unique ambulatory care center nestled in small town Oklahoma, providing high quality care for American Indians in a beautiful, Joint Commission accredited facility. As part of the Indian Health Service, our mission is to "Raise the physical, mental, social, and spiritual health of American Indians and Alaskan natives to the highest level." Our leadership and staff take this mission statement to heart, truly striving to make it the guiding principle for our care model.

The CIHC is currently in the process of preparing for Primary Care Medical Home certification, which means that we strive to put our patients at the center of their care. We aim to provide services that are universally compassionate, comprehensive, and coordinated. It is a big goal, but we utilize resources wisely to prioritize patient care above all else.

Any patient who is a registered member of a federally recognized Native American or Native Alaskan tribe is eligible to receive services at the CIHC at no personal cost. If patients have private insurance, Medicaid, or Medicare, the facility will bill the patient's insurance, but patients receive all available services free of charge and are not required to pay any additional co-pay. Uninsured patients are encouraged to pursue additional insurance, but are not required to do so in order to receive services.

- The Adult Medicine clinic consists of two medical homes. Each core team includes two medical providers, a registered nurse, a medical support assistant and two licensed practical nurses. The team provides chronic care for long-term diseases like diabetes, heart disease, asthma, and kidney disease. The medical home also focuses on preventive care and education. The providers are also available to see patients for acute, same day needs.

- The Pediatric medicine clinic consists of two pediatricians, a registered nurse, a licensed practical nurse, and a medical support assistant. The pediatrics team provides preventive care, chronic care, and acute care. As part of the National "Reach out and Read" pro-

gram, the pediatric clinic distributes free books to every patient at their well child visits from 6 months to 5 years of age.

• The Behavioral Health services provided at CICH are comprehensive. There is a licensed clinical social worker embedded in the adult medicine clinic to provide crisis intervention, brief interventions, on-the-spot counseling, and more comprehensive services as needed. In our traditional behavioral health department, we have a psychologist, two telemedicine psychiatrists, a child psychologist, and a counseling psychologist who also works closely with the local substance abuse center to provide group-counseling sessions. The behavioral health department welcomes students and post-graduate psychologists in training, who provide additional services.

• The Physical Therapy and Rehabilitation department houses a physical therapist, two physical therapy assistants, a chiropractor, two massage therapists, a podiatrist, a registered nurse, a licensed practical nurse, and a medical support assistant. This busy program provides acute and chronic physical therapy services for patients with disability or injury. Additionally, a full time podiatrist cares for patients with foot problems, including offering minor surgery, wound care, orthotics fitting, and treatment and follow up of injuries. The Physical Therapy department is also the epicenter of the CIHC's interdisciplinary rehabilitation team, a multidepartment initiative that was developed in 2016 to combat opioid overuse and help manage chronic pain. The program offers a "whole person" approach to dealing with chronic pain that incorporates non-opioid medications, physical therapy, counseling, chiropractic services, and massage therapy.

• The Pharmacy program at CIHC provides a multitude of services. In addition to its primary role of filling and dispensing medication, the pharmacy offers clinical pharmacists who review medications with patients during their visit. The pharmacy also has pharmacy-led clinics, including a hepatitis C clinic, a tobacco cessation clinic, and a chronic disease management clinic for patients with diabetes and high blood pressure. The facility formulary is comprehensive, and patients are able to receive all formulary medications at no cost. The pharmacy also assists patients in accessing benefits programs and other resources to ensure that non-formulary medication needs are met.

• Two dentists, dental assistants, and dental hygienists staff the dental clinic. It provides daily walk-in services for acute dental needs, as well as scheduled care for chronic issues and follow up. There is an endodontist as well who provides root canals and other specialty services. Dentures are also available to eligible patients as funding allows.

• The Audiology department, staffed by an audiologist and an audiology assistant, provides hearing screenings, hearing tests, and care of ear disorders.

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Free hearing aids are available to eligible patients.

• The Optometry department, staffed by an optometrist and two optometry assistants, provides vision screening, treatment of visual disorders, and a free glasses program for eligible patients.

• The Radiology program has a multitude of state-of-the art services and equipment, including x-ray, high resolution CT, ultrasound, and three-dimensional mammography. Patients can schedule appointments for tests. Urgent patients are worked in same-day during their clinic visit.

• The laboratory program offers a wide array of same-day clinical labs to support medical provider decision-making. A comprehensive send-out lab ensures that all necessary laboratory needs are met.

• The Benefits coordinators assist patients in applying for resources to ensure they have the optimal degree of access to care.

• Specialty clinics provide increased access to care, including a monthly rheumatology clinic, a bi-monthly orthopedic surgery clinic, a monthly endocrinology clinic, and a monthly nephrology clinic.

• The Purchased and Referred Care department works tirelessly to ensure that patients receive outside referrals to specialists who are not available on site.

• The Nutritionist provides nutritional guidance and counseling, as well as diabetes educational classes and a weekly diabetes support group. She also leads a multi-disciplinary diabetes task force that partners with the Cheyenne and Arapaho tribal diabetes program to improve diabetes care in the community. Diabetes remains a leading cause of death and morbidity for Native American communities. In our adult population, diabetes prevalence ranges from 13-18%, so diabetes care is by necessity a major area of clinical focus.

• Public Health nursing provides community outreach and care. The Public Health nurse tracks immunization rates and reaches out to the families of children in need of vaccines to ensure that they receive appropriate immunizations. Public Health Nurses are a continuous presence in the community, providing flu shots at outreach clinics and attending community events to provide education and blood pressure checks. They also provide pre-natal and post-natal home check-ups.

• The Patient advocate is available to assist patients in navigating the health care system, and providing support.

Our long list of ever-increasing services is a testament to our commitment to offering a truly comprehensive approach to patient-centered medical care. Many of the patients who seek care at our facility travel from great distances to benefit from our services, so we are diligent in ensuring that we meet as many of their needs as possible. We are also constantly seeking out innovative ways to advance our care model, expand services, and improve the patient experience. Each staff member is required to participate in process improvement projects, which creates an exciting environment that welcomes new ideas and fosters a culture of quality. Quality is a driving force behind all of our efforts, because there is always a way to make things better for our patients.

The CIHC is also committed to community outreach. Each year we host a "Big Event" at our facility, which includes a health fair and a 5K run. Patients receive education, blood pressure screenings, immunization updates, and information about our services. We also host a yearly "Community Baby Shower" to reach out to new and expecting families; this event includes many community partners and provides education, resources, and the opportunity to receive free baby essentials. Another important partnership event is the yearly "Head Start screening", which ensures that every child entering Head Start in our community has a physical exam, hearing screen, dental screen, vision screen, and a chance to update their immunizations. Other community outreach initiatives include the Veteran Stand Down, the Elder's Conference, Community dinners, and Community listening sessions.

As a facility dedicated to the care of American Indians, we seek to provide medical care that honors, respects, and speaks to our patients' cultural heritage. All staff are required to undergo cultural awareness training to learn about our patient population. We work closely with the Cheyenne and Arapaho tribes to ensure that our care is culturally sensitive. We recognize that caring for our patients' social and spiritual needs is no less important than managing their health care issues. Indeed, our mission recognizes that it is only by treating all aspects of a patient – physical, mental, social and spiritual – that we can truly improve overall health in the community that we serve.

Pediatric Care for Refugees in Amarillo

by Lisa Veggeberg, M.D.

The Northwest Texas Hospital System (NWTHS) Women's and Children's Healthcare Center, inside of the J.O. Wyatt Clinic, provides pediatric and women's health services to the Amarillo community. Our primary service population is those families with Medicaid or CHIP who live near the clinic on Amarillo Boulevard. While the majority of our patients and their families speak English or Spanish, we are now providing care to a significant number of refugees to the Amarillo area. A survey of patients in a recent month showed that up to 20% of the patients and their families were non-English, non-Spanish speaking in pediatrics, with an even higher number in the women's health program.

The Public Health Department's Refugee program enrolls the families on their entry to Amarillo and its medical community. After a review of the medical history, a general medical screen and immunizations as necessary, the patients are referred to outlying clinics in the area where the families live. Due to our clinic location, we are a frequent referral for the patients. In fact, many of the patients live within walking distance of our facility.

The providers of the Women's and Children's Healthcare Center are all Texas HealthSteps providers as well as Medicaid providers for sick visits. We strive to have our first visit with the refugee families within one month of their visit to the Health Department. Their records come with them for us to review, which may include the overseas records, immunizations and any labwork done by the Health Department.

Needless to say, we have become well acquainted with the translator services available in Amarillo. Ideally, a translator is scheduled to attend a clinic visit with the refugee family to assist us in providing their medical care. If the translator is unavailable, we have access to phone translation for almost any language necessary. In addition to dealing with the language barrier for our families, we are addressing a lack of knowledge with regard to our medical care system.

Most of the refugees who come to us have a case manager assigned from their sponsoring Refugee program. He or she is tasked with coordinating appointments, enrolling children in school, and in general providing assistance to the families. This is available to them for a defined period of time, after which the families are presumed to be able to address any needs themselves.

The Texas HealthSteps examination is a comprehensive medical evaluation for children who are covered by Texas Medicaid. It is aligned with the American Academy of Pediatrics guidelines for all pediatric patients. We look at the nutritional, environmental and developmental status of the patient, in addition to their medical and dental needs. Updating immunization status can be a challenge in those patients whose records are spotty, those who started late, or in fact not at all, overseas.

A very common need among the refugee children is adequate dental care, which has not been a priority for the families prior to their arrival in the United States. Many of these children present with significant dental caries requiring further attention. Our dental colleagues have been very helpful in addressing the chronic, and acute, dental needs of these children. Their general health and well-being is obviously impacted when poor dental care is present. Poor weight gain, poor appetite, and often general ill health are only a few of the manifestations of poor dental hygiene.

We as healthcare providers are reacquainting ourselves with medical conditions we have not seen frequently in Amarillo. The refugees we see come primarily from Myanmar and Africa, along with a few families from the Middle East. We are treating children with hemoglobinopathies not common to the Texas Panhandle. We must keep in our minds diseases we might consider tropical when encountering a child with an unusual medical presentation.

Even when the medical condition is not particular to the refugee population, providing adequate treatment and management can present with logistical complications. Many of our patients have a limited education, so explaining a complicated medical problem in another language through a third party is a challenge. Additionally, there is the occasional need to refer out to a medical specialist who might not be in Amarillo. It is not an unusual occurrence to refer to a specialist in Lubbock, or even as far as Dallas or Ft. Worth, for a more complicated problem. While Texas Medicaid will provide for transportation assistance, coordinating these services often falls to the clinic staff.

Getting to appointments even in Amarillo for services provided locally presents a problem for refugees who might not drive, whose only car is at work during the day, or who are unable to navigate the city easily. Children with complicated medical issues might be bussed to a public school which is not the family's home school, and so is not convenient for multiple appointments for therapy, procedures or evaluations during the school day. We have had occasion to have a child come to the clinic to meet with a therapist for a visit which the family could not otherwise attend.

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The Amarillo winters are quite different from the climate from which these families originated. It is not unusual to need to find coats or shoes for children who arrive to a clinic visit in short sleeves and flip-flops on a cold winter day. School supplies can be a financial burden on families at the beginning of the school year. Sometimes it is hygiene items such as toothbrushes which are needed. Though not directly related to their medical care, all of these social needs impact the health and well-being of our refugee children.

The Women's and Children's Healthcare Center is a provider for the Reach Out and Read program, a national program which offers books of appropriate age and language to children who come in for their well child exams. Our books come from donations, garage sales, and employees' children's bookshelves. We have received grants from several local community services organizations to purchase books as well. Our refugee children, who often have nothing new to call their own, are excited to receive a book at their checkup. They might not be reading yet, but they can tell the story in the pictures, sharing it with their siblings. The older children who do read can practice with their younger siblings and parents.

While all of these services are available to all of our patients at the Women's and Children's Healthcare Center, the refugee patient population requires them more frequently. We have identified staff members who have learned to navigate the oftentimes complicated world of healthcare to assist these families in taking care of their children. I have found them to be grateful for the assistance being provided and for the care we as an Amarillo medical community are providing to their families.

We have enjoyed watching these children thrive in their new community, learning English at an amazing clip. These young people are assisting their parents in navigating the world in which they now find themselves. We learn from them as well, about their culture and their capacity to adapt to their new environment. They are excited to come, even for shots, as these families have endeavored to provide a better life for their children.

Panhandle AIDS Support Organization

by Ellie Saadat, MSSW

The Panhandle AIDS Support Organization, Inc. (PASO) serves the 26 counties in the Texas Panhandle. This organization was formed in 1987 to provide emotional support to local HIV positive individuals and their families. PASO serves a diverse population in terms of ethnicity, age, sexual orientation, and economic status. However, more than fifty percent of the clients at PASO are minority males who have sex with males. The agency currently provides emergency assistance for doctor's visits, diagnostic laboratory testing, HIV medication, housing, utility assistance, transportation, and emergency food services to individuals who are HIV positive or have a diagnosis of AIDS. These individuals are usually referred to PASO by the Amarillo Health Department. An initial assessment is completed by one of the medical case managers, and a client must provide proof of HIV positivity. During the first visit, clients are referred to a physician who specializes in HIV/AIDS for labs and medications.

At the initial intake meeting, the needs of clients are recognized, and based on those needs a care plan is implemented. The most important need for the client is to see an HIV specialist or infectious disease physician. Clients who have insurance can make an appointment with the doctor as soon as their medical records have been received and reviewed by the physician. Newly diagnosed individuals need to get extensive blood testing at the initial medical appointment.

It may take longer for clients who are uninsured, but alternative services and coverage are available. Clients who are uninsured may be referred to the JO Wyatt clinic to apply for services and be screened for income qualifications. The JO Wyatt clinic is a part of the Northwest Texas Healthcare System. Individuals who live outside of the Amarillo city limits are referred to a physician by PASO.

Clients who are considered high risk, such as are pregnant women and intravenous drug users, are monitored more closely. Doctors who work with PASO send a summary of each visit for each client to the medical case managers, and medical assessments and follow ups are scheduled with case managers two weeks after the initial visit. Health outcomes for patients are based on the blood work results. The ultimate goal is for the patient to start taking HIV medications and be compliant, so the number of virus particles in their blood will be undetectable.

HIV medications are extremely expensive for individuals without insurance, and copays can be expensive for the insured patients. Most manufacturers of HIV medications provide patient assistance programs to help with copayment, which covers the remaining cost of HIV medications in most cases. Uninsured individuals have great options for receiving their medications. One option is through the AIDS Drug Assistance Program (ADAP), and the second option is directly from the pharmaceutical company.

The ADAP program is called the Texas HIV Medication Program (THMP) in Texas, and it is funded through the Ryan White Care Act. The ADAP program is available in all fifty states, the District of Columbia, and U.S. Territories (Olson et al., 2014). Texas HIV State Pharmaceutical Assistance Program (SPAP) is also operated by THMP, which assists HIV positive individuals who do not qualify for Low Income Subsidy with out-of-pocket costs associated with Medicare Part D. They help with Medicare Part D and assist individuals with prescription drug plans, copayments, deductibles, coinsurance and with the coverage gap. THMP has another program called the Texas Insurance Assistance Program (TIAP) that can help people who have health insurance with medication copayments. TIAP can also pay COBRA premiums for qualifying plans. (*www.dshs.state.tx.us/hivstd/meds*).

The individual needs to submit an application along with proof of HIV diagnosis, verification of income, and Texas residency. The THMP program is based on household income, and it is evaluated based on the Federal Poverty Level. Patients are required to submit a six month self-attestation, must report residency or income changes, and will need to recertify annually during their birth month.

Individuals who are HIV-positive and live in rural areas face some challenges because they need to drive to Amarillo for HIV related services. PASO provides transportation services as far as providing bus passes and gas cards for HIV related appointments. Bus passes can be used for Amarillo Transit. PASO works with Panhandle Community Services for clients who do not have means of transportation.

Overall, individuals who are HIV positive can receive beneficial services in the Texas Panhandle area. Patients receive medical care from experienced physicians who have been serving the HIV positive population for over twenty years in Amarillo. Individuals who have HIV can easily be directed towards medical care, financial services, and mental and substance counseling by registering for services with PASO.

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Informed Consent

by Luke Wendt, D.O.

Introduction

For 2,500 years we have used the Hippocratic tradition in medicine to guide our duty to provide ethical care for patients. In the 1970s we had a paradigm shift that changed the medical profession's myopic focus on the benefit of the patient as our governing ethical principle to a new and dramatic emphasis on informed consent.

Case Report

A 29 yo Gravida 2 Para 1 Somali female at unknown gestation presented to her provider for her first prenatal visit. By last menstrual period she was 42 weeks gestation although her fundal height was consistent with a 35 week fetus. Ultrasound was performed and confirmed a fetus measuring 35 weeks gestation with normal amniotic fluid and placentation. During the ultrasound exam a biophysical profile (BPP) was performed with only 2 points for maximum vertical pocket >2cm. Due to the concerning findings with BPP, she was sent to Northwest Texas Hospital for delivery. Upon arrival continuous fetal monitoring showed a category II fetal heart tracing with prolonged decelerations and intermittent variable and late decelerations. The patient was counseled regarding the need for immediate intervention. As her cervix was not favorable to induction of labor, she was advised to have immediate cesarean section. As there was a language barrier, the translator service was utilized. Upon discussion and recommendation for delivery, the husband refused to use the translator line and refused further medical intervention. Continued attempts were made to communicate with the patient but, as the husband was the only English speaker and refused to use a translator, communication was difficult. The husband continued to refuse intervention despite best attempts to educate both the patient and husband regarding the emergent situation placing the fetus at greater and greater risks of adverse consequences if we did not intervene. After approximately 4 hours of category II-III fetal heart tracings that were unresponsive to all conservative measures, the husband agreed to allow the patient to proceed with cesarean delivery.

Discussion

Although most physicians are aware of principle-based ethics (autonomy, beneficence, nonmaleficence, and justice), there are various other ethical frameworks. Virtue ethics relies on qualities of character that dispose a physician to make decisions that respect the patient. Care-based ethics directs attention to dimensions of moral experience, often excluded from or neglected by traditional ethical theories. Feminist ethics identifies and challenges dominance and oppression of women and groups of race, class, or other characteristics. Communitarian ethics emphasizes a community's shared values, ideals, and goals and suggests that the needs of the larger community may take precedence over individuals. Case-based reasoning utilizes precedents set in specific cases to guide future ethical decisions.

In each of the ethical frameworks the idea of informed consent is central. Informed consent requires the patient to understand and comprehend their diagnosis as well as the treatment options, whereby they are then able to freely consent without coercion, pressure, or bias. The American College of Obstetrics and Gynecology (ACOG) has published multiple Committee Opinions on how autonomy can be guaranteed and informed consent properly obtained.

The case presented unfortunately is not a rare event and occurs far too often. Communication is difficult and is only made more difficult when language is a barrier and in the setting of an emergency. Forming relationships with patients and communities helps develop trust in the medical system and provides an avenue for more open and free communication between provider and patient. In this particular case, we have identified multiple shortcomings on our part in our ability to clearly communicate and ensure full understanding to the best of the patient's ability. In addition, we identified the need to reach out to this particular ethnic group within our community. In Committee Opinion 390, ACOG published "Seven guidelines for ethical decision making" which we plan to review annually in order to communicate with our patients in a more effective manner so as to ensure they are afforded the opportunity of autonomy and informed consent for any medical intervention they may require. For further information and models for effective communication between patients and providers, please refer to the RESPECT model or any of the Committee Opinions published by ACOG.

Box 1. The RESPECT Communication Model

Rapport
- Connect on a social level.
- See the patient's point of view. Consciously suspend judgment. Recognize and avoid making assumptions.

Empathy
- Remember that the patient has come to you for help.
- Seek out and understand the patient's rationale for her behaviors or illness. Verbally acknowledge and legitimize the patient's feelings.

Support
- Ask about and understand the barriers to care and adherence. Help the patient overcome barriers.
- Involve family members, if appropriate.
- Reassure the patient that you are and will be able to help.

Partnership
- Be flexible with regard to control issues. Negotiate roles, when necessary.
- Stress that you are working together to address health problems.

Explanations
- Check often for understanding. Use verbal clarification techniques.

Cultural Competence
- Respect the patient's cultural beliefs.
- Understand that the patient's view of you may be defined by ethnic or cultural stereotypes.
- Be aware of your own cultural biases and preconceptions.
- Know your limitations in addressing medical issues across cultures.
- Understand your personal style and recognize when it may not be working with a given patient.

Trust
- Recognize that self-disclosure may be difficult for some patients.
- Consciously work to establish trust.

Modified with permission from Mutha S, Allen C, Welch M. Toward culturally competent care: a toolbox for teaching communication strategies. San Francisco (CA): Center for the Health Professions, University of California; 2002.

The United States Public Health Service and The Commissioned Corps: A Historical Review

by Rouzbeh K. Kordestani, M.D., MPH

Introduction

The United States Public Health Service (USPHS) constitutes the health, health care and health care officers under the umbrella of the government of the United States. It officially became an entity with passage of the United States Public Health Services Act, written into law in 1944 and given life by President Franklin Delano Roosevelt. The purpose of the law was to consolidate and revise all previous laws related to the Public Health Services and roles of the government of the United States, its branches (military or otherwise), its commissioned officers, and to give the group a dedicated common purpose. The law has been amended many times since that date, with notable additions such as the Family Planning Services Act of 1970, National Cancer Act of 1971, the Health Insurance Portability and Accountability Act of 1996 (HIPAA), and the Patient Protection and Affordable Care Act of 2010 (ObamaCare) to name but a few.

The USPHS, or PHS as it is commonly referred, is at times indistinguishable from its functional unit, the Commissioned Corps. The Commissioned Corps officers of the United States Public Health Service constitute all of the officers supplied to the five branches of the military of the United States, including the Army, the Navy, the Marines, the Air Force, the Coast Guard, as well as those to the National Oceanic and Atmospheric Administration Commissioned Corps. The commissioned officers are also tasked with duties to the Department of Defense, the Department of State, the Department of Homeland Security, the Department of Justice (Federal Prisons), and the Department of the Interior. Their motto has been and continues to be: "Protecting, promoting, and advancing the health and safety of the Nation."

The Marine Hospital Service and the Supervising Surgeon

The story of the PHS and its commissioned officers started over 200 years ago. It all began in 1798 with the creation of the Marine Hospital and the Marine Hospital Service. Initially, the service (not yet named the PHS) was charged with the upkeep and health of sailors as they came and went on their journeys of trade throughout the newly formed country. The main focus here was one of disease diagnosis, prevention and quarantine. But as the new country grew rapidly, the function of the Marine Hospital also grew. In one of the most notable early events, in 1871, General William Sherman of the Union Army appointed his own surgeon, Dr. John Woodworth, to head the hospital and its handful of staff. Soon, Dr. Woodworth's title was changed from Supervising Surgeon to the Surgeon General. Dr. Woodworth, being an Army man himself, then began organizing the members of the Marine Hospital Service and its physicians into a military structure, able to mobilize from one area to another in response to the needs of the military (and the country). This core structure was soon adopted as the standard. In 1889, President Cleveland formally recognized the Marine Hospital Service, under its new name, the Public Health Service Commissioned Corps, and placed it under the direction of the Surgeon General (Supervising Surgeon).

The Commissioned Corps continued its growth and its responsibilities at home and abroad, specifically with the intent of health dispensation. In 1944, the members of the Commissioned Corps and its function were further organized under the United States Public Health Service Act of 1944 by President Roosevelt. There they continued to exist until 1953 when Congress again reorganized the United States Department of Health under one expansive group, the United States Department of Health, Education and Welfare. As the country continued its rapid growth, these three areas (Health, Education and Welfare), all became independent departments of the government, and were given their own administrative bodies. In 1979, the Commissioned Corps and the United States Public Health Service was reorganized once again, this time under the newly formed United States Department of Health and Human Services (HHS), with its own cabinet secretary and under-secretary of health. The Surgeon General would continue to act as the head of the Commissioned Corps and to be the highest-ranking medical officer in the United States government.

The Function of the PHS and the Commissioned Corps

The PHS is responsible for the health care and the dispensation of health related services to the American population. Its focus, though, is to serve medically underserved populations, such as those with special needs or those in far off areas, such as the native people of Alaska. It continues its role in disease diagnosis, prevention and quarantine, similar to its original tasks as the Marine Hospital Service. The PHS is also responsible for the education of the public about preventive health care measures, immunizations, medical research and biomedical advancement. Through its medical corps, the PHS is moreover responsible for national and international aid efforts. This is an addition to its role as the medical framework for the government and the military.

The Ready Reserve Corps

The Ready Reserve Corps (RRC) arm of the Commissioned Corps of the PHS was established in 2010 by President Obama as part of the Affordable Care Act (ACA) amendment to the United States Public Health Service Act. Its function

| continued on page 38

was to augment the Commissioned Corps with additional physicians and allied care professionals in times of need, national or international, civil or military. Previously, the Inactive Reserve Corps functioned as a reservoir of commissioned officers available in the case of a national need. With the establishment of the RRC, the Commissioned Corps ranks were increased by almost 8,000 members. This was deemed necessary due to the growth both in the domestic population and the needs of the military in peacekeeping and armed conflicts throughout the world.

The Response Arena

The PHS and its Commissioned Corps not only respond to the needs of the underserved population at large but also respond to both domestic and international emergency needs. The PHS deploys its Commissioned officers in response to the National Response Framework. This framework can be activated by the Surgeon General, the Secretary of Health and Human Services, or by the President, if he or she deems it necessary. These deployments are surprisingly common yet effective.

In the last 20 years or so, the list of activations includes the following:

1995 The Oklahoma City Bombing

2004 Hurricane Ivan

2005 Hurricane Katrina/

Hurricane Rita/Hurricane Wilma

2010 Haiti Earthquake

2012 Hurricane Sandy

2014 Ebola Virus outbreak in Africa

2017 Hurricanes Maria/Irma/Harvey

This is by no means an all-inclusive list. However, it does show the extent of the involvement and participation of the PHS and its Commissioned Corps.

Conclusion

The United States Public Health Service and its Commissioned Corps began its life as the Marine Hospital Service soon after the Revolutionary War. As the country grew, so did the Corps. It began its formalized life under Presidents Cleveland and Roosevelt. Since its formalized declaration, the USPHS has grown to an immense force with a tremendous set of responsibilities and tasks, responsible for the health care of tens of millions of people. As the decades have passed, the USPHS and its Commissioned Corps have shown their true breadth in their ability to afford care to citizens and non-citizens alike, in arenas around the world. As history has shown, United States Public Health Service and its Commissioned Corps of Officers are a true testament to America and its potential.

PATIENT INFORMATION

Geriatric Care

by Taru Bharadwaj and Tarek Naguib, M.D., M.B.A., F.A.C.P.

What is the meaning of the word geriatric?

The word geriatric pertains to the aging population of the society. The terms gera/gero in Greek mean old age. Accordingly, gerontology is the science of studying old age.

What is geriatric care?

Geriatric care is the healthcare applied to the aging population which is generally accepted to be the population aged 65 years or older. These services are provided by a physician called the geriatrician. A geriatrician is a primary care physician who finished additional training in geriatrics.

How is the geriatric population different than others?

The aging body usually develops different rate of function than those who are younger. The rate of metabolism slows down as the age advances. Accordingly, the response to nutrition and medication intake is going to be different. Also, the body composition changes with age. A simple example is that the amount of body water decreases slowly from about 65% in young persons to 50% with aging. Also, energy expenditure slows down with age due to the less activity level among other causes. Aging is also associated with memory and balance problems.

How do we dose medications in the geriatric population?

Due to above changes with aging, it is natural to assume that older persons may well require smaller doses that their younger counterparts. Accordingly "usual" doses given to older persons may at times be excessive.

Can we stop the process of aging?

Research has been ongoing for long years to address this question. So far, there is no evidence of success in developing a medicine to slow aging. However, avoiding both excess calorie intake and sedentary life style is expected to provide for a successful aging to maintain healthy and active life style. This is what people usually term as "aging gracefully".

When do I need to see a geriatrician?

Although the geriatrics age is 65 or older, not every person in this age group needs to see a geriatrician. You should continue seeing your internist for the usual care. However, with advancing age, you can discuss with your internist if you would benefit from seeing a geriatrician.

For more information on aging from the CDC:
https://www.cdc.gov/aging/index.html

by Tarek Naguib, M.D., M.B.A., F.A.C.P.

Ebola Returns MDLinx (5/14) - The spread of Ebola in Democratic Republic of Congo is worrying, but the outlook is much more optimistic than when reported in West Africa in 2014. While cases of the deadly virus are nearing the capital Kinshasa, with a population of 10 million, the WHO is moving rapidly to mobilize the response, convening an Emergency Committee and sending the new vaccine to ring-fence the outbreak and stop it from spreading further.

Americans Fear Infection Spread American Society for Microbiology News (5/21) - An overwhelming majority of Americans (95%) think infectious and emerging diseases facing other countries will pose threat to the US in the next few years, but more than half (61%) say they are confident the federal government can prevent a major infectious disease outbreak in the US, according to a new survey commissioned by Research America and the American Society for Microbiology.

Public Support for Vaccines Falls NBC News (5/21, Fox) – The public support for vaccines has fallen among Americans since 2008. A new survey by Research America released Monday found that among 1,000 people asked "how important do you believe vaccines are to the health of our society today," 70 percent responded "very important" and 22 percent responded "somewhat important," compared with 80 percent and 17, respectively, in previous surveys.

US Uninsured Rate Holds Steady New York Times (5/22, Subscription Publication) The Centers for Disease Control and Prevention found that the uninsured rate remained flat at 9.1 percent suggesting resilience of the ACA, and its expansion of insurance coverage. Overall, the figures over the years show the ACA has reduced the number of Americans without insurance by around 19.3 million people between 2010 and 2017.

Senate Overhauls VA Healthcare New York Times (5/23, Subscription Publication) - The Senate gave final approval "to a multibillion-dollar revamp of the veterans' health care system, consolidating seven Veterans Affairs Department health programs into one and making it far easier for veterans to take their benefits to private doctors for care."

Dentists at Risk of Pulmonary Fibrosis JAMA (5/1) - CDC reported a cluster of 9 cases of idiopathic pulmonary fibrosis in dentists, who are therefore presumed to be at an increased risk of the disease that causes lung scarring due to unknown exposure. Dentists are advised to use respiratory precautions during work to protect their lungs from potential exposures.

Nursing Shortage Impacts Elder Care In Texas KFDA-TV Amarillo, TX (5/21) reports a nationwide nursing shortage could impact the Texas Panhandle's population of older residents. According to the Texas Health Care Association, low pay for a demanding job has been cited for the nurses leaving nursing home care, causing high turnover rate.

Medication Trend Increase in the Young JAMA (5/15) – The use of medications for asthma, attention deficit disorder, and contraception has increased in a survey of over 38, 277 US children and adolescents. However, the same population revealed a favorable trend with a decline of the use of antibiotics and antihistamines.

High Drug Costs in the US Medical Economics – (4/25) The US ranks at the top in the world in the per capita annual drug expenses at $1000, and at the top of the world in patients skipping a drug due to cost – 30% of the uninsured and 15% of the insured who were surveyed. 10% of the total health expenditures in the US is spent on prescription drugs.

Smart Phone Monitors Blood Sugar JAMA (5/1) – FDA approved blood glucose monitoring via Smart Phone. The continuous glucose monitor can work in tandem with mobile medical phone apps and automated insulin pumps.

Memory Can Be Transferred MDLinx (5/14) - Neurobiologists at the University of California, Los Angeles (UCLA) reported transferring a long-term memory from a trained sea snail to an untrained sea snail by removing RNA from the nervous system of the trained snail and implanting it in the untrained one. After the transfer, the untrained snails displayed the behavior of the trained snails, as recently reported online in the journal eNeuro.

Acupuncture did not help Fertility JAMA (5/15) – In a study of 848 women who were undergoing in vitro fertilization, acupuncture vs sham acupuncture were compared at the time of ovarian stimulation and embryo transfer. There was no significant difference in the rate of live births between the two groups.

Water Intake Does not Help Kidneys JAMA (5/8) - A randomized study was performed in 631 patients with chronic kidney disease who were coached to increase water intake compared to those who were coached to not increase water intake. The study revealed no benefit in the increased water group over the course of a year.

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UPCOMING EVENTS

2018

Save the Date
2018 Fall Conference
September 28-29
Hyatt Regency Lost Pines

2018

Save the Date
2018 TMA Advocacy Retreat
November 30-December 1
New Venue: Renaissance Austin

2019

Save the Date
2019 Winter Conference
January 25-26
Hyatt Regency Austin

Dr. Constantine Saadeh Introduces

DR. NICOLE DAVEY

Board-Certified Rheumatologist

We are so pleased to have Dr. Nicole Davey-Ranasinghe (AΩA, University of Nevada School of Medicine) aboard Allergy A.R.T.S.

Dr. Davey did her internal medicine residency at the University of Nevada School of Medicine where she served as chief resident. Following residency, Dr. Davey completed her clinical training with a **fellowship in rheumatology** at Oregon Health and Science University. She has spent the last three years with Centura Health Physician Group in Durango, Colorado.

Board Certified in rheumatology and internal medicine, she brings experience and passion for the management of both common and complex rheumatologic conditions, such as **rheumatoid arthritis, lupus, osteoarthritis, spondyloarthritis and osteoporosis**.

I know Dr. Davey will be a great asset to the patients of Allergy A.R.T.S. and to the Amarillo medical community. **Welcome!**

To make an appointment with Dr. Davey, please call (806) 353-7000

Constantine Saadeh, M.D.
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